### TESTIMONY

OF

## J. W. BROOKS

BEFORE THE

## COMMITTEES ON RAILROADS,

OF THE

## LEGISLATURE OF MASSACHUSETTS,

March 29th, 1870.

WITH AN APPENDIX.

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# INTRODUCTION.

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SINCE my testimony in relation to the Boston, Hartford, and Erie Railroad was given at the State House, the other day, some new points have occurred to me, which are discussed in the appendix following the paper read before the committees.

The friends of the Boston, Hartford, and Erie Railroad have proclaimed that in my evidence I spoke for seventy-five to one hundred millions of capital that was arrayed against this enterprise; that I was connected with Western railroads, and did not speak from an impartial stand-point. I speak for no man but myself; my friends had not seen the paper I read at the State House, nor were acquainted with my views, save by the reasonable conjecture, that my natural instincts would scarcely harmonize with the management of the Boston, Hartford, and Erie Railroad.

The gentlemen with whom I have had the honor to act for nearly thirty years have built, and now control and manage, once and a half as many railroads as there are in Massachusetts. These lines chiefly converge at Chicago, from where they gradually spread out westward, until, at the Missouri River, they extend from the Union Pacific Railroad on the north to the Indian Territory on the south, presenting a front three hun-

dred and fifty miles broad, in the latitude of the great bend of the Missouri River. We have brought our lines to a common point at Chicago, because there the lines for Philadelphia, New York, and Boston start for the seaboard. We may have been influenced to select that point as an outlet for our lines, because it was on this parallel of latitude; our judgment may have been influenced by a tincture of New England feeling,—of Massachusetts feeling, and, if you please, of Boston feeling, and thus far my stand-point may be a partial one,—but our position at Chicago is one of unqualified independence, and it is a matter of pecuniary indifference to us, whether the business we have gathered from five States finally reaches the sea at Boston, New York, or Philadelphia.

It needs no argument to show that it is for our interest to have as many practicable routes to reach the seaboard as possible, and if we thought the Boston, Hartford, and Erie Railroad could ever reduce the rates of freight, either by carrying it itself, or creating additional competition with others, I should have a direct interest in having it completed.

# BOSTON, HARTFORD, AND ERIE RAIL-ROAD.

[Paper read by Mr. Brooks before the Committees.]

In order to form an intelligent and well-grounded opinion, upon the merits of this undertaking, I have divided it into as many portions, or branches, as are sufficiently distinct from each other to require a separate treatment, and given to each that consideration which its importance seemed to require.

I shall give the reasons upon which my opinions are founded, that no more or less weight may be given to those opinions than the reasons shall justify:—

GRADES UPON THE BOSTON, HARTFORD, AND ERIE COMPARED WITH THOSE UPON THE BOSTON AND ALBANY RAILROAD.

It is claimed that a locomotive can haul twenty-five per cent. more freight over the Boston, Hartford, and Erie than over the Boston and Albany Railroad. This is neither true of the ruling grades which are eastward in the direction of the heavy tonnage, nor a fair method of stating it. The Boston and Albany Railroad is, and always has been, worked in four divisions, ending respectively at Worcester, Springfield, Pittsfield, and Albany. This arrangement separates the light from the heavy grades, in working the line, and enables

them, by using more locomotives upon the heavy grades and less upon the light ones, to work all their power upon maximum loads, and thus with the greatest economy. The ruling grades coming east on the first division of the Boston and Albany Railroad are thirty feet per mile; on the second division, sixty feet per mile; on the third division, seventy-five and one-half feet per mile; and on the fourth division, forty-five feet per mile. This gives an average of fifty-two and sixtenths feet per mile for the ruling grades on the four divisions. If the sixty feet grades of the Boston, Hartford, and Erie Railroad are, as I have understood, so scattered as to bring them on every working division, then the average ruling grades on the Boston and Albany Railroad are about fourteen per cent. lower than on the Boston, Hartford, and Erie; and, making the ordinary allowance for friction, - say, seven and one-half pounds per ton, or equal to a grade of twenty feet per mile, - it will be found that a little over ten per cent. more power is required to move a given amount of traffic on the Boston, Hartford, and Erie than on the Boston and Albany Railroad. The practical difference is, however, much more than ten per cent. in favor of the Boston and Albany Railroad, for their heavy grades are so located that, by the use of assistant locomotives in two or three places, their average load is very much increased; whereas they have so many sixty-feet grades on the Boston, Hartford, and Erie Railroad, and so large a proportion of their whole line has grades of fifty feet and upwards, that this expedient cannot be economically resorted to.

#### THROUGH BUSINESS.

For half a generation the New York Central and Hudson River Railroads have been carrying freight between the West and New York, through the Mohawk and North River Valleys, and making colossal fortunes in the business; adding immensely to their facilities and power for moving freight; besides making regular and extra dividends out of the profits of their traffic.

The Erie Railroad through all these years has been vainly endeavoring to make a profit by carrying freight at the same rate over the mountains of Southern New York.

It is not likely that they ever made a dollar on their long traffic.

Nothing, of course, can be learned from the reports and figures of people who have so much to conceal; but the large increase of their capital and debt, which has been constant throughout their history, and apparently out of all proportion to the increase of their property, would indicate that the profits on their local business had been all swallowed up by the losses on their through traffic.

The cost of working traffic over the Erie road is necessarily very high; while over the New York Central it is very low. One is a broad-gauge mountain road, and the other an ordinary gauge, — nearly a level one.

The advocates of the broad-gauge theory of late years have been pretty much confined to its unfortunate victims. The extra weight of its rolling stock in proportion to the load carried, raises the proportion of non-paying tonnage; and the friction due to the curves is largely in excess of that upon the narrow gauge.

In some foreign countries, where such property is protected from competition, the broad-gauge roads are prosperous; but where they come in open competition with the narrow gauge, bankruptcy is the rule, to which there is hardly an exception. Of the four thousand miles of broad-gauge roads in this country, I know of but one line that is not hopelessly bankrupt, and that makes two or three per cent. by carrying its through freight on a narrow gauge, for which it has laid down a third rail. Without the third rail, it would be as bankrupt as the rest of them.

The distance from Fishkill to Buffalo, the nearest point on	1
Lake Erie, and where most of the freight concentrates,	dr ( _ 001
is by the Erie Railroad,	389 miles.
From Fishkill to Boston by this road,	224 "
Total distance from Boston, via Fishkill to Buffalo,	613 miles.
From Boston to Albany by Boston and Albany	
Railroad, 200 miles.	
From Albany to Buffalo by New York Central, 298 "	
From Boston via Albany to Buffalo, ——	498 miles.
Difference in favor of route via Albany,	115 "

I suppose between two and three times as much freight can be moved with the same power on the New York Central as on the Erie road. It will certainly be within the mark to put the cost of conveying freight on the Erie road, by reason of its mountain grades, broad gauge, and great amount of curvature, one-third greater than the cost to the New York Central. If, therefore,

we add one-third of three hundred and eighty-nine miles to the Erie road, we shall get a comparison that will practically differ in miles only, and it may be stated as follows:—

From Boston to Fishkill,		224	miles
From Fishkill to Buffalo,		389	66
Add, to equalize the grades with the other route	e, one-	100	
third of 389, say,	1	130	66
Committee and the Committee of the Commi	The latest	7.00	
Total from Boston via Fishkill to Buffalo,	model 7	743 n	niles.
From Boston to Albany,	200 miles.		20.00
From Albany to Buffalo,	298 " 4	98	66
Difference in favor of the Albany route,		245 n	niles.

Now, as I think the difference in cost of moving freight on the Erie and on the New York Central is much more than one-third, I think the practical difference is much greater than two hundred and forty-five miles, and that freight can be moved from the West by way of Albany to Boston from one to two dollars per ton cheaper than from the West to Fishkill, by way of the Erie road.

In respect to the cost of transporting freight, Fish-kill by way of the Erie road is not so near the West as Boston is by the way of the Boston and Albany road, and the construction of this road, even if it could be worked for nothing, is not a step forward but a step backward from the West, and so much of a step backward, that if Boston had to rely upon it for its freight route from the West, it would place the city about as far east as the city of Bangor, for the actual cost of carrying freight from the West via Albany and Boston to Bangor would not differ materially from the cost of

taking it from the West by the way of the Erie Rail-road and Fishkill, to Boston.

I think all past experience confirms this view. Most intelligent men, and I venture the suggestion that all unprejudiced ones, who have had much experience in the management of the internal commerce of the country, will agree that in the actual cost of transit between New York and the West there is a very large difference against the Erie, and in favor of the New York Central route. Albany, therefore, is on the best route even between New York and the West. But the Boston, Hartford, and Erie road, instead of reaching Fishkill with less miles than the old route reaches Albany, is twenty-four miles longer in reaching a point eighty-five miles south of Albany; that is, eighty-five miles further from the West. Together, these make a loss of onehundred and nine miles, and still they have before them all the disadvantages of the heavy grades of the Erie, which we have before stated as equal to one hundred and thirty miles, to which is to be added the excess of the measured distance between Fishkill and Buffalo by the Erie road over the route via Albany, which is five miles, giving a total of two hundred and forty-four more miles, considered in respect to cost of carrying freight, besides the disadvantages of the ferry, transhipment and broad gauge. By far the best route for the business of this road to take from Fishkill to the West is via Albany, which it can reach with a loss in actual distance of one hundred and nine miles, as compared with the Boston and Albany road.

This is clear enough from the simple statement, that it is absolutely nearer in measured miles from Fishkill to Buffalo via Albany, than via the Erie road. Taking this, the most economical route from Fishkill, the distance to Albany is more than fifty per cent. above the direct route, and as this is a much larger proportion than the profit yielded by the through traffic, they cannot participate in it unless they obtain from the State, or some other source, an annual subsidy to make up the losses they will incur in attempting to compete for it.

Practically, the whole cost of taking freight from the West to New York has been incurred in getting it to Fishkill; for, in addition to the cost of bringing it to Newburgh, on the west side of the Hudson, the expense of the ferry and the transshipment is to be incurred, which will bring the cost nearly up to that of delivering it in New York by the main line of the Erie road.

The price of freight from the West to New York is always kept down by the competition of the Baltimore and Pennsylvania lines with those of New York. All are in strong competition throughout the West, for freight to that city, and often the rates get down very low. Freights in the general average, therefore, are likely to be lower to New York than to Fishkill, where there will be no competition.

New York, then, is a better place than Fishkill for Boston to go to get freights from the West, and there are several freight routes between Boston and New York on which the actual cost will be much less than by this route to Fishkill.

Perhaps the routes of competition between the West and New York require some explanation to be well understood.

Cleveland, Chicago, St. Louis, and Cincinnati are

among the most prominent points through which the freight business of their respective districts is drained to New York.

From Cleveland the route through Pittsburgh and the Pennsylvania Central Railroad is twenty-two miles shorter to New York city than the shortest route through the State of New York; from Chicago the route via Fort Wayne and Pennsylvania Central is fifty-nine miles shorter; from St. Louis via Indianapolis and Pennsylvania Central is seventy-four miles shorter; and from Cincinnati the route via Indianapolis, Pittsburg, and Pennsylvania Central is one hundred and seventeen miles shorter. Thus, nearly the whole West can reach New York with less miles of carrying via the Pennsylvania Central than over either the New York Central or Erie Railroad. This, and the competition of the route through Baltimore, which is part water, secures to New York city low rates of freight from the West.

The routes between Boston and the West through Philadelphia and Baltimore do considerable business, which is doubtless capable of much enlargement. The position of these cities is so much nearer the West than any of the more northern Atlantic cities that their land carriage is relatively very short. A line drawn due south from Dunkirk, the western terminus of the Erie road, and four hundred and sixty miles from New York, would cross the Pennsylvania Central Railroad three hundred and twenty-two miles from Philadelphia, and the Baltimore and Ohio two hundred and thirty-four miles from Baltimore. Thus Philadelphia is shown to be one hundred and thirty-eight miles, and Baltimore

two hundred and twenty-six miles nearer to the West than New York. This gives these lines great power for distributing Western produce by water from these outlets.

In competition with the Boston and Albany road, we now have the part water and part land routes to New York, connecting with the various lines from there: the routes through Philadelphia, and that through Baltimore, and the Northern Transportation Company via Ogdensburgh; and when the Hoosac Tunnel is done we shall have a route both shorter in miles and easier in grade. But the Boston, Hartford, and Erie Railroad will never form part of a route that will exercise the least influence upon the carrying trade between this city and the West.

#### BRIDGE AT FISHKILL.

So great was the objection to interfering with the commerce of the Hudson River, that it took from ten to fifteen years to get a practicable right to bridge it, even at upper Albany, where the bridge would be above nine-tenths of the commerce. And it was only when it became a necessity to the city of New York, that freight should come from the west over the Hudson River Railroad to that city without transshipment, that it was finally accomplished.

The lower part of the river is more crowded with commerce than any other river in the world outside of China. It is often so crowded that steamers have to run slow and pick their way through the fleets that nearly fill the stream. As the chief object of a bridge would be to try to stop freight from going to New York, and bring it to Boston, the right to bridge the river could hardly be procured, even if there was but little commerce to interfere with. It may be regarded as wholly out of the question; but if a bridge could be got there, the break of gauge in the roads would still compel a transshipment.

[It was stated afterwards that a charter has been granted for a high bridge across the Hudson, one hundred and fifty feet above the water, at a point some ten miles or more below Fishkill. These observations were intended to apply to a low bridge.]

#### COAL TRAFFIC.

Coal comes to Philadelphia, the great coal depot of this country, upon a down grade from the mines, over the Reading Railroad, which, with its three hundred locomotives and ten thousand coal cars, is better prepared to carry it cheap than any other railroad in the world. They bring down from ten to twenty thousand tons per day, and have for long periods, when pressed with business, brought more than twenty thousand tons per day on an average. With their unexampled facilities and enormous business, the actual cost to them of carrying coal, including renewals, is about ten mills per ton per mile. It is not at all likely that it can be carried upon the Boston, Hartford, and Erie Railroad, with their heavy grades, and running one way empty, for less than twenty to twenty-five mills; but if we put it at seventeen mills per ton per mile only, the actual cost, leaving nothing for the use of rolling stock, or profit for the

road, will be three dollars and eighty-one cents per ton for the distance from Fishkill to Boston. To which must be added the cost of the ferry and extra handling and loading upon cars at Fishkill, say nineteen cents, and we have four dollars per ton as the actual cost of delivering the coal at their depot in Boston. The average rates for transporting coal from Philadelphia to New York, last year, was about one dollar and fiftyfive cents per ton. It can probably be taken in barges and scows from the terminus of the Erie Railroad, opposite Fishkill, to New York, at from forty to fifty cents, or about a dollar a ton cheaper than from Philadelphia. As the value at New York is the same, it follows that the price of coal at Fishkill is about a dollar a ton higher than at Philadelphia, and that Boston cannot afford to pay so high, by a dollar a ton, for bringing coal from Fishkill, as from Philadelphia.

In the dull season of the year, the rate from Philadelphia to Boston is two dollars per ton. The average rate for the last two years has been two dollars and fifty cents per ton, delivered on the various wharves where wanted. This would leave but a dollar, or a dollar and a half, which Boston could pay for bringing coal from Fishkill, without having it cost more than if brought, as now, from Philadelphia, while the actual cost to bring it over the railroad would be four dollars per ton. The price of bringing coal to Philadelphia is likely to be materially reduced, by the use of large iron screw colliers. The first of a line of seven, to be completed in May, has just been introduced upon the route. I have been told that parties in the interest of this road had stated that they could carry coal at a cost of three-

fourths of a cent per ton per mile. If so, this is not the first, or the tenth time, that companies, under certain circumstances, have put out remarkable estimates. But I do not recollect another case where parties have claimed an ability to transport coal, over sixty-feet grades, cheaper than other men of the most enlarged experience, and having the most perfect facilities, could carry it down hill. I have no doubt whatever that the small portion of their line in this State can be most economically supplied with coal by transporting it westward from the city of Boston; and that the country in the central part of the line will be supplied, as heretofore, from the ports on Long Island Sound, - leaving only the territory along their line in the western part of Connecticut, and the little piece in the State of New York, which can be supplied, at a fair profit, from Fishkill.

#### LOCAL BUSINESS.

It is claimed that because this railroad crosses many other lines between Boston and Fishkill, it is sure to have a large local business. This is the very reason why it does not now, and never can have, even a fair local traffic.

The first railroad that is built through a district of country, if it be on the most direct route to the nearest and best market, will permanently command the carrying trade of the country it accommodates. Villages will be built, and manufactories established upon it, in the combined interest of the people along its line, and the capitalists of their market terminus. The whole industrial development of the region will be created by,

under the control of, and subservient to this joint interest.

If the local business of the country traversed by this road was with Boston, that on the west half would have an average haul of three-quarters of its whole length, and that on the east half an average haul of one-quarter of its whole length, and the local traffic of the western half would then be worth three times as much as that of the eastern half.

The business of the country along the west half of this line is drained to New York by some seven railroads, built, controlled, and managed, by New York. That city is the natural, nearest, and best market for that whole region, in the interest of which it has been built up and developed.

This road will get some very short local business on this part of their line, by taking it to and from the New York lines and the little hamlets upon the narrow strips of country between them. The large towns would of course be mainly upon the direct lines to New York, leaving but a scattered population between them.

The effort to bring the business of this region to Boston is not very unlike the building of a railroad from Portland through the country tributary to the Boston and Maine, the Lowell, the Fitchburg, and the Worcester Railroads, to take business to that city. The country traversed is filled with a wealthy and industrious manufacturing population, whose business is large and prosperous; but they have no occasion to go to Portland. Their business is with Boston, a nearer, larger and better market.

On the eastern half of the line the population and

manufactories have clustered about and grown up upon the older lines, which were doubtless laid through the locations best suited by their natural fitness to become centres of population and business. It is not reasonable, therefore, to look for a large local business on this part of their line.

A large portion of this railroad is by no means new. It has been running many years; long enough to test its prospect for local business, and to see if the character of it is likely to be such as is indicated herein.

Last year their return shows the distance they carried their passengers, through and way included, was an average of less than eleven miles per passenger, for which they received about twenty-three cents.

Very little freight is moved upon railroads as short a distance as ten miles. The cost of teaming it to and from the depots, for these short routes, makes it cheaper to team it the whole way.

The average distance they hauled freight last year was less than twenty-six miles, and their average rate per ton about one dollar and forty-three cents.

At these rates it would take five millions of passengers, and one million tons of freight, if they made a profit of one-third of their gross earnings (which could hardly be done on that class of traffic) to pay a net of seven per cent. on the money they spent last year.

#### NEW YORK AND BOSTON PASSENGER BUSINESS.

A part of this line is capable of being made a competitor for a portion of the passenger business between Boston and New York. It is said to be seven miles shorter from Boston to Hartford than the route via

Springfield. I do not think that this is more than difference enough to compensate for the great advantages of the double track, and high character of the route via Springfield. With a difference of only seven miles, the other line, with the same skill and effort, would be likely to make quite as good, and perhaps better, average time. The New York Central route is twenty-two miles longer than the Erie route, for all the travel which passes through Cleveland between New York and the West; and yet it probably carries more than threequarters of the travel, and makes much the best average time. I do not refer to this in disparagement of this line, but simply to show that something more is required than a route seven, or even twenty, miles shorter to command a fair share of the business. No road can take even half the business from so strong a line as that via Springfield, without that perfect preparation of road and equipment, which is not to be procured short of a vast expenditure of money. Whether for a share of this business, already divided between five lines, it would pay upon the required expenditure, is a question about which parties might differ in opinion. As the Boston and Albany Railroad must run several express trains between Springfield and Boston to accommodate their western connections and Connecticut River valley business, they can carry the New York travel without running special trains for it. might, therefore, be profitable to them, and yet a loss for a line differently situated.

The amount of this business is greatly over-estimated by the public. The number of passengers between Boston and New York, via Springfield, in both directions, amounted, in 1869, to less than ninety-one thousand; and yielded in gross receipts less than two thousand five hundred dollars per mile of road, and to the express trains, about a dollar and a quarter per mile run, — a sum wholly inadequate to pay, except in combination with other business of a similar express character. If the whole of this business could be taken to the new line, it would not pay for much preparation to accommodate it; and if they took only a portion, which is the best they could do, it would certainly not be a very promising business to contend for.

#### COST AND DEBTS.

The mortgage debt, as shown by the experts, of twenty-two million five hundred and twenty thousand six hundred dollars upon the three hundred and sixtythree and three-fourths miles of their road, built and proposed to be built, amounts to sixty-one thousand nine hundred and twelve dollars per mile. Their floating debt, as stated in their return, amounts to seven million three hundred and forty-nine thousand one hundred and sixty-four dollars. From this should be deducted what may be realized upon their pledged collaterals, a sum entirely problematical, say two million dollars, leaving a net floating debt of five million three hundred and forty-nine thousand one hundred and sixty-nine dollars. This is equal to fourteen thousand seven hundred and five dollars per mile. Their whole debt, funded and floating, not including, I suppose, unpaid interest, damages for non-payment of contractors, and the myriad of unsettled accounts and

claims which always hang over so extended a concern in its financial condition, amounts to seventy-six thousand six hundred and eighteen dollars per mile. To pay the interest on its debts for one year, and get rid of all legal claims against the property, and complete the road in the most ordinary manner, and equip it for a small business, would doubtless require from eight to fourteen millions of dollars, and would bring its indebtedness up to one hundred and eight thousand dollars or one hundred and eighteen thousand dollars per mile.

The Hartford, Providence, and Fishkill Railroad, one hundred and twenty-two miles long, and a completed road, was purchased by this Company with a debt of about two millions of dollars upon it. It was then worked, I believe, on account of its creditors, and being a bankrupt concern, I suppose it was purchased by assuming its debt, and paying for the balance of the purchase in stock. If this be true, then the whole debt of the Company, except this two million dollars, was created to aid in the construction of the remaining two hundred and forty-one and three-fourths miles of the road, on which it will amount to from one hundred and forty-nine thousand dollars to one hundred and sixty-five thousand dollars per mile.

The average cost of all the other railroads in Massachusetts, including the portions beyond the State line, is about forty-seven thousand dollars per mile. The liabilities of this Company, exclusive of their capital stock, if completed in the most ordinary manner, will be from thirty-six million to forty-two million dollars, which is more than three-fifths of the cost of all the rest of the railroads of the Commonwealth, including their vast

equipment and terminal and station accommodations, and some three hundred miles of double track. At the average cost per mile of the other Massachusetts railroads, this one would cost seventeen million one hundred and forty-seven thousand dollars; whereas its debts alone are likely to exceed forty million dollars.

### VALUE OF THE RAILROAD.

There seems to be great difference of opinion as to the value of this road when completed. The State Engineer, I believe, has expressed the opinion that it would more than pay expenses the first year, but is not sanguine that it would pay the interest on five million dollars in addition. An engineer who has been connected with it thinks that if certain further large expenditures are made it will pay an interest of seven per cent. on forty million dollars.

A railroad that cannot pay more than its running expenses, and keep up its property, whatever may be the market price of its securities, is worth nothing as property.

As the main branches of business for which this railroad was ostensibly projected cannot be done by it, and most of its remaining expected business is otherwise provided for, or is to be partially procured by the closest competition, the prospect of its ever being of much value to its proprietors, to say the least, is remote and uncertain.

A railroad, in order to be secure of yielding any profit, however small, should have sufficient business which it can call legitimately its own; that is, which it

has not to compete with other lines for, to more than pay its working expenses and renewals. Thus much being secured, the amount of its profits, which fixes the value of the property, must mainly depend upon the further supply of non-competing business, which it can count on, and such competing traffic as it has advantages for securing and conducting fully equal to those possessed by its rival lines. Applying these principles to test the merits of this line, we find that their relative disadvantages for conducting a through business from the West are greater than those of the old lines by more than the proportion of profit in the business, and that therefore they cannot participate in the long carrying trade except at an absolute loss; that the actual cost of bringing coal to Boston over this line will make its cost much higher than if the city is supplied by the old route as'heretofore; that the Boston and New York passenger business is so moderate in amount and so divided already, and the preparation required to compete for it is so considerable and expensive, that it is doubtful if profit enough could be got out of it to pay fairly upon the outlay required; that the western half of this line runs directly across the natural routes of its carrying trade, where abundant facilities are already provided to drain the business to its nearest and best market; that years of development have shown the local business of the eastern half of the line to be exceedingly small. Their total earnings per train per mile were less last year than the rest of the Massachusetts railroads expended per train per mile in working their roads.

'The Hartford, Providence, and Fishkill Railroad, forming one-third of the whole road of this Company,

has been rendered bankrupt by a debt of less than eighteen thousand dollars per mile. It may at present be worth more than that, but must be illy able to carry one-half or even one-third of the average debt per mile of this Company.

They have two roads over the first thirty-six or thirty-eight miles of their line from Boston; and when the Woonsocket and Putnam line is done, they will have two roads all the way to the town of Putnam or Mechanicsville, about sixty miles, to which there is still another route, though eleven miles longer, "via Worcester." As these two lines join each other in the centre, and at both ends, they must be very crooked, or so near each other that, under ordinary circumstances, it would seem as if the country to be drained by each was much too narrow to furnish a paying business.

Their whole prospective business is so cut up by rival lines, in many if not most cases, better situated to accommodate it, that I can see no reliable sources from which a business likely to yield any profit can be developed.

It would be very marked success if they should hereafter make, on their completed road, a profit sufficient to pay the interest upon half as much per mile as the average cost of the rest of the railroads in Massachusetts, which would be represented by a capital of eight million five hundred and seventy three thousand five hundred dollars. Paying the interest on this sum I should regard as the outside measure of attainable profit, while the chance of earning more than enough to pay the working expenses and keep up the property is quite uncertain.

## conclusion.

A new route to the West, to command public confidence, should be at least as good as any already existing; and to entitle it to public assistance, it should be manifestly a better one, that is, one upon which freight can be carried at less cost than by any existing route.

The break of gauge and want of a bridge at the North River, compelling a transshipment, the mountain grades beyond, or the more than a hundred miles of extra length, — either of these three inevitable disadvantages would alone be sufficient to ruin this line as a route from the West to Boston.

Whatever may be the necessities of Massachusetts or New England for more or better communication with the West, this railroad can be of no use in relieving them.

There is no chance of its being able to bring coal from Fishkill to Boston, or to any part of Massachusetts along its line. It will, therefore, have no influence upon the quantity or price of that article consumed by our citizens.

The local business of the eastern half of the line is mainly otherwise accommodated, as evidenced by their insignificant earnings after years of its growth.

The business of the country traversed by the western half of it is with the city of New York, its nearest and best market, and as this road lies across its natural routes, it cannot participate, to any extent, in the carrying trade.

This line opens up no new sources of business to

Boston or to Massachusetts. It does not improve its means of reaching its old sources of business. The very small portion of its route which lies within this State has so little business as to indicate that even its importance to the State, as a local line, is very insignificant.

None of the objects, which induced the public to aid in the construction of this railroad, can be attained or even promoted by it. It was not, therefore, of public interest that it should be undertaken, and its completion will have no favorable influence upon the city of Boston, or State of Massachusetts.

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### APPENDIX.

#### PENNSYLVANIA CENTRAL BUSINESS FROM THE RAILROAD.

It did not then occur to me, when preparing the foregoing paper, that this road would claim that they could get business from the Pennsylvania Central road, a hundred miles south of New York, and bring it past that city, over their road to Boston.

Of the great Centres of business in the West, by far the most favorably situated for sending business over this route is Cincinnati. From that city the distances on the present and proposed routes compare with those of the old line, as follows:

From Cincinnati, via Columbus (Penn. Central), Harrisburg, and the shortest route to New York, is

From Cincinnati via Columbus and Buffalo, to Albany, is - International Control of the Contr

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Thus, Cincinnati is nearer to Albany than to New York, by 15 miles.

#### BY THE PROPOSED MOUNTAIN ROUTE.

From Cincinnati, via Columbus,	Pittsburg,
and Allentown, to Easton,	669 miles.
From Easton by the proposed	new line, a
large part of which is yet to be	e completed,
it is said by the friends of	the Boston,
Hartford, and Erie road to be	94 "
From Newburgh to Boston,	225 "
	—— 988 miles.

#### BY THE OLD LEVEL ROUTE.

Extra distance over the mountains,			59 miles.
	1 1 1		929 miles.
Albany to Boston,	200	661	
Buffalo to Albany,	298	66	
Cleveland to Buffalo,	183	66	
Cincinnati to Cleveland,	248 1	miles	•

Thus the mountain route, with a large amount of line yet to build, will be fifty-nine miles longer from Cincinnati to Boston, than the old level route via Buffalo. It is clear that after the many millions are spent to complete this new route beyond Fishkill, it cannot bring much business to Boston against the old route.

It was to me quite a novel claim of the Boston, Hartford, and Erie road that they could bring produce from Cincinnati, via the Pennsylvania Central Railroad, to Boston for export.

Baltimore is more than two hundred miles, and Philadelphia more than one hundred miles, nearer the West than the city of New York. This favorable position of

these cities in respect to the produce of the West has given them a large export trade, and made them strong competitors for it; especially for that portion of it which originates south of Central Ohio.

Produce, to come from Cincinnati or any part of the West, via the Pennsylvania Central and Boston, Hartford, and Erie road to Boston, passes through Harrisburg and Easton on its way to Fishkill. At Harrisburg it is only eighty-five miles from Baltimore, and one hundred and six miles from Philadelphia, while it is four hundred and sixteen miles from Boston,—a difference of three hundred and thirty-one miles in favor of Baltimore, and three hundred and ten miles in favor of Philadelphia. This difference, at two cents per ton per mile, amounts to as much as the average ocean freight, so that produce could ordinarily be carried as cheap from Harrisburg via Philadelphia, or Baltimore, to Liverpool, as to Boston.

In passing Easton the produce would only be seventy-five miles from New York, while it would be three hundred and nineteen miles from Boston,—a difference of two hundred and thirty-four miles against Boston, which, at two cents a ton a mile, would make four dollars and sixty-eight cents per ton against the latter city.

I will make no comment on the wisdom of spending millions of the public money to prepare to take the produce of the West via the Pennsylvania Central, and Boston, Hartford, and Erie Railroad to Boston for export.

ALBANY AND SUSQUEHANNA CONNECTION.

By far the best connection between Boston and the Erie Railroad is over the Albany and Susquehanna Railroad, which compares with the Boston, Hartford, and Erie route as follows:—

Buffalo to Fishkill, Fishkill to Boston,			389 miles 224 "
Buffalo to Boston, via Erie road and Fishkill,			613 miles.
Buffalo to Binghampton, via Erie road,	208	miles	int again
Binghampton to Albany, via Albany and Susquehanna road,	142	66	visco si si
Albany to Boston,	200	66	550 "
Difference against Boston, Hartford, and			63 miles.
Erie,			oo miles.

Thus, even from the Erie road the old route via Albany is sixty-three miles the shortest.

#### OTHER ROUTES TO THE NORTH RIVER.

Parties in New York and Connecticut have the charters for, and have commenced a railroad from New Haven, fifty-seven miles, to the North River, near Peekskill.

Having the choice of bridge sites, they approach the river, as they claim, at much the best point to bridge it, and own the only charter for a high bridge across the Hudson, which is estimated to cost between three and four millions of dollars.

The distance to the North River, by this route, compares with the Boston, Hartford, and Erie as follows:—

From the North River to New Haven,	57 n	ailes.
" New Haven to Willimantic,	50	66
" Willimantic to Boston,	86	66
Distance from Boston to North River,	193	"
Boston to Fishkill, via B. H. & E.,	224	66
Saved by the New Haven route, 14 1-3 per cent., or	31	46

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If there was real merit in any of these lines, for Boston business, the saving of fourteen and one-third per cent. is shown to be of the most vital importance by the fact that the whole profits of the Erie road are only eighteen per cent. of their gross earnings; so that the new line could make quite a profit on prices which the Boston, Hartford, and Erie would make a losing business upon.

As this line strikes the river some twelve or fifteen miles below Fishkill, a connection between it and the Pennsylvania Central would be much shorter than a connection to Fishkill, and a saving of perhaps forty miles be made by it between Boston and the Pennsylvania Central road. If this saving was eighty instead of forty miles, I should regard it of little interest to Massachusetts, for the line would still be far more expensive to freight over than the present valley route.

With this line completed from New Haven to the river, the following routes connect Boston and the site of the proposed high bridge over the Hudson:—

From Boston, via Providence, New London, and
 New Haven, to the river,

213 miles.

2. From Boston, via Springfield and New Haven, to
the river, 219 "

- From Boston, via Worcester, Palmer, Willimantic, and New Haven, to the river,
   225 miles.
- 4. From Boston, via Willimantic and New Haven, to the river,
- From Boston, via Worcester, New London, and
   New Haven, to the river,

The Boston, Hartford, and Erie road is so very crooked, that, as shown in the second route above, you can go west a hundred miles over the Albany and Boston road to Springfield, and then almost due south across the State of Connecticut, sixty-two miles, to New Haven, and then go west and reach the bridge site, with less miles' travel than via the Boston, Hartford, and Erie road. I suppose the Boston, Hartford, and Erie road could not be extended to the bridge site without making it ten miles longer than to Fishkill, or two hundred and thirty-four miles from Boston.

All of these routes reach the bridge site with less miles than the Boston, Hartford, and Erie, and one of them with forty miles less.

All the saving in distance brings the coal fields so much nearer Boston, and though it will not enable them to bring coal to this city, or even into Massachusetts along their line, they can of course bring it further eastward, by all the distance saved.

Four of these shorter routes are mainly old established lines, with more or less double tracks, and other facilities for doing a large business. Every man, conversant with railroad traffic, knows that an old established line with all its fixed expenses, like taxes, pay of officers, etc., and including the decay of its perishable property, such as bridges, ties, etc., etc., provided for

out of its current traffic, can take upon its line new business, without increasing in the same proportion its expenses. I have found these fixed expenses on some roads to be one-third of the whole; on some others it would be more, and on some less. Whatever the proportion of these fixed expenses, it is obvious that just in that proportion the old lines can work cheaper than the new line, without loss. This advantage, and in close competition it is a very potent one, the old lines will have over the Boston, Hartford, and Erie road, and in that degree can be more useful public servants.

I have simply spoken of these routes, to show that there are other parties in the field, whose lines are shorter and with lower grades, and already, in large degree, prepared to do the traffic, if through such a route it was obtainable. They do not ask for State aid, but are spending their own money in their own work.

Is it wise for the State of Massachusetts to send any more of its money down into the States of Connecticut and New York, to make war upon their citizens by further aiding a rival enterprise? Is it wise for the State to spend its money in building a road in another State, when the citizens of that State are building a road that will serve the same purpose? Is not this a somewhat gratuitous use of the public money?

#### VALUE OF THE RAILROAD.

Some of the people connected with this road estimate that it will earn, when extended to the Hudson River, seven per cent. on forty million dollars.

The Erie Road, with, as near as I can ascertain from its time tables, about eight hundred and twenty-

three miles of line, four hundred and four locomotives, three hundred and thirty-eight passenger, baggage, and mail cars, and seven thousand four hundred and fortyseven freight cars, - an equipment which cannot now be produced for eleven million dollars, - does not earn so . much. It earns about seven per cent. on thirty-one million dollars. If it takes eleven million dollars' worth of rolling stock to earn seven per cent. on thirty-one million dollars, it will take, at the same rate, more than fourteen million dollars' worth to earn the interest on forty million dollars. In short, if the business was offered this road, in order to earn the sum stated, it must do a third more business on its three hundred and sixty-three miles of road than the Eric does on over eight hundred miles, which would require fourteen million dollars' worth of rolling stock, a double track all the way, and a third track much of the way, and such terminal and other facilities as have not been seen in this or any other country. The Erie road, with all its vast preparation and double track, after twenty years of development, earns a net of two thousand six hundred and forty-eight dollars per mile. At this rate, the Boston, Hartford, and Erie would earn a net of nine hundred and sixty-one thousand two hundred and twenty-four dollars, or seven per cent. on thirteen million seven hundred and thirty-two thousand dollars.

In this comparison, it will be seen that I have given to the Boston, Hartford, and Erie the same proportion of profit on the business that is realized by the Erie road, which is much more favorable to them than a just statement of the case warrants. The Erie road has an enormous local business, which they control, and of

course get a fair profit on. It is, relatively, a small carrier of produce from the West to the seaboard. Their whole movement of produce, through and way, including the supply to the populous non-producing region they traverse, and including live stock, was last year less than one-seventh of their whole tonnage. I do not believe their through produce movement amounts to one-tenth of their whole tonnage. I suppose there can be no doubt that the long traffic is a losing business to the Erie road, and that is probably the reason they do so small a proportion of that class of business. Onehalf the tonnage of the New York Central is produce. If the Erie did anything like that proportion, their losses would soon render them unable to run their road for any kind of business. Now, as the Boston, Hartford, and Erie road will do but a small local business, if it carries much long traffic, the losses on that will more than use up the profit on the local, and keep them in a constant state of helplessness.

It may be said that they can get better rates on the long traffic, — rates that will be sure to pay the expense of carriage. That is not true, unless the public will pay more for freight, brought over that line, than over the old route. However much the rates may change, from time to time, on freight from the West to the seaboard, the same difference is kept between the rates to Boston and those to New York. The former are a dollar a ton higher on most of the business, and two dollars on the lighter and some special goods. Cutting the through line at Albany, one hundred and fifty miles from New York, gives to the Albany and Boston road the proportion which would pay for transit on one hun-

dred and fifty miles of distance, if it was going to New York, and the dollar or two dollars, as the case may be, extra, which is charged on Boston freight. The dollar or two is to pay, under the pro rata system, for the extra fifty miles of distance to Boston over the distance to New York. Of course, if freight is taken to New York, on its way to Boston, the rate due for carriage to that city is used up, and nothing remains to pay for its carriage to Boston but the extra dollar or two belonging to the Boston rates. These rates and conditions will be, as heretofore, uniform on all the routes, Pennsylvania Central, as well as New York lines, for neither will let the other underbid them, as frequent general reductions in the rates, to less than half the cost of carriage, have shown. The rates to Boston, therefore, may be regarded as permanently not over a dollar a ton higher than to New York, on the great bulk of the produce business, and when the route through the Mohawk valley chooses to make it the same to Boston, as they now offer to do on produce for export, they can do so, and still make more money on it than any other lines can to New York.

The idea that the road was likely to earn the interest upon such an enormous capital has obtained much of its support from the statements of experts, that the Massachusetts railroads earn an average of eighteen thousand dollars per mile. The returns of the Massachusetts railroads give the mileage of the roads, within and without the State separately. Their earnings they do not thus separate, but give their whole earnings, within and without the State, in one sum. Their whole mileage, and their whole earnings upon that

mileage, may be stated as follows for the year 1869:—

Miles of main road in the State,	1241.48
" road out of the State,	400.70
" branch roads,	268.47
Total miles per report,	1910.65
Deduct for error in Cheshire Railroad,	53.65
Total miles,	1857.00
Gross earnings for the year,	\$24,539,722
which is per mile,	\$13,214

With that prudent foresight which intelligent men use in spending their own money, the Massachusetts railroads have mainly been built where they could supply a great public necessity not otherwise provided for. They have been laid through the manufacturing and populous districts, on the shortest route, to the nearest and best market. With this favorable beginning, to attain their present condition of great prosperity has required many years - almost a generation - of persistent effort to create and develop their business. Much of their success, in this direction, has been due to their very small indebtedness, and the consequent elasticity of their finances. How is it, in this respect, with the Boston, Hartford, and Erie Railroad? A very small proportion of its business is of that steady and reliable character for which the Massachusetts railroads were built. The most valuable portion of its local business, and all of its through, is better accommodated by other lines.

Their return to the State for the year 1854 closes as follows:—

"Since our last return we have completed and opened for travel that portion of our road extending from Blackstone to Mechanicsville, on the Norwich and Worcester Railroad (about twenty-three miles), and by the first of next month we expect to open for travel some twelve miles more, extending from Ded-ham, through Dorchester, to the foot of Summer street, in the city of Boston, thereby completing the line between Boston and the city of New York. We also expect that the remaining section of our road to Southbridge will be finished and opened for travel during the next summer."

Since that return its local business in this State, after fifteen years of development (with some intermission when the road did not run), has not increased to that amount per train per mile which the other Massachusetts railroads expend in working and keeping up their roads.

It is not reasonable to expect that, if the road is completed through to the North River, it will at once start off with any larger earnings per mile than did the other Massachusetts railroads. After from five to twenty-five (perhaps an average of fifteen) years of development, the earnings of the Massachusetts railroads had risen, in 1859, to an average of six thousand eight hundred and eighty-five dollars per mile. This, at seventy-five per cent. for expenses, leaves a net of one thousand seven hundred and twenty-one dollars per mile, which, on the three hundred and sixty-three miles of the Boston, Hartford, and Erie Railroad, would be seven per cent. on eight million nine hundred and twenty-five thousand dollars.

After five years of further development, the average earnings had risen, in 1864, to nine thousand four hundred and forty-three dollars per mile, which, at the same rate of expenses, would yield seven per cent. upon twelve million four hundred and seventy-two thousand dollars.

After five years more of development, the average earnings had grown, in 1869, to thirteen thousand two hundred and fourteen dollars per mile, which, at the same rate of working expenses, would yield seven per cent. upon seventeen million two hundred and eighty-four thousand dollars.

No road which has to compete for any considerable proportion of its business can be worked for seventy-five per cent. of its earnings. The average working expense of the Massachusetts railroads is above seventy per cent. of their gross earnings.

If this road should only do such business as it could clearly make a profit on, it would be mainly confined to a small local traffic, and probably would not earn nearly so much as the six thousand eight hundred and eighty-five dollars per mile given above, but it would be sure to make some profit. If it made an effort to swell its gross earnings, by doing much through traffic, its net earnings would be proportionately reduced.

What has led to the remarkable estimates of the value of this road, entirely overshadowing all the most successful railroad enterprises in the country? There is nothing remarkable about it but its enormous waste and misuse of money, and it seems to be assumed that, because many millions of the Company's money have been lost in stock speculations and disappeared in various

ways without leaving any property to represent it, somehow or other, the value of the property has proportionally increased; that a road honestly costing, perhaps, fifteen or eighteen million dollars, has, by the misuse of its funds, come to be worth forty million. Had this road only cost the average of the other New England roads, say fifteen million dollars, the idea that it would earn the interest on forty million dollars, or even twenty million, I venture to suggest, would never have occurred to its most sanguine friends.

In reply to a question of the committee, I stated that I would not finish the road for it, and gave, as a reason, that I doubted the sufficiency of their estimate of six millions of dollars to complete and equip the road. Their estimates have not heretofore resulted in a manner to give confidence that the cost would not be eight, or even ten millions. In all the sanguine expressions of its friends and advocates, I have not yet heard a reason (unless a bald assertion be a reason), why this road is likely to earn a satisfactory income, upon its probable cost of completion and equipment to the North River, more especially if it has to pay tribute to the parties, who, I understand, own and control the ferry and terminal grounds at that point.

The more I reflect upon this matter the more am I inclined to reiterate my earlier conclusions, that it would be very marked success if they should hereafter make on their completed road a profit sufficient to pay the interest upon half as much per mile as the average cost of the rest of the railroads in Massachusetts, which would be represented by a capital of eight million five hundred and seventy-three thousand five hundred dol-

lars. Paying the interest on this sum I should regard as the outside measure of attainable profit, while the chance of earning more than enough to pay the working expenses and keep up the property is quite uncertain.

## MOUNTAIN AND VALLEY ROUTE.

The Alleghany mountains, and their northern continuations, extend from the Mohawk valley to the Carolinas. The Baltimore and Ohio, the Pennsylvania Central and Erie Railroads, have vainly sought for a passage through this great barrier. The Baltimore and Ohio crosses these mountains at a profit, because its outlet to the sea, at Baltimore, is two hundred and twenty-six miles nearer the West than the port of New York; and that much of land carriage is saved. Pennsylvania Central has its outlet at Philadelphia, about a hundred and forty miles farther West, and nearer the sources of business than the more northern lines; and this fact enables that line to cross the mountains at a profit. The Erie Railroad crosses this same range; but New York is so far from the West that this road can make no profit by carrying traffic from the West, over the mountains, to that city.

It lives upon its immense local business, taking the smallest proportion of the through traffic, and making up its losses upon it out of the way business.

This formidable mountain range breaks off entirely at the Mohawk valley, which extends all the way to the lakes. Through this natural outlet pour four-fifths of the whole produce of the West, which seeks the seaboard north of Pennsylvania, flowing directly towards

and in the latitude of Boston, until it reaches Albany, when it makes a right angle, and flows one hundred and fifty miles down to New York.

This route from the West is so much better than any other, that freight can be taken over it, via Albany to Boston, at much less cost than it can be taken over any other route to the city of New York. In other words, freight cannot be landed in New York, by the Pennsylvania Central or Erie Railroad, at as little absolute cost, as it can be landed in Boston by the New York Central and Albany and Boston Railroads, or any equally good road, built through the valley of Central New York, and from the North River to Boston.

This great current of produce can be tapped at Albany, or Troy, one hundred and fifty miles before it reaches New York, at much better advantage than anywhere else.

Nothing can be more foolish than to go twenty-four miles further, to get to Fishkill, and then be ninety-four miles further from the West, and still have all the mountains between the road and the business it is seeking. It is wholly unreasonable to expect to get cost for doing business obtained in such a novel way.

The natural route is on this latitude, and any effort to obtain a more southerly one can only result in disappointment and loss, — disappointment, because the object sought cannot be obtained, and loss, because the money used would be absolutely sunk.

I expect, when the Hoosac Tunnel is completed, it will be a thoroughfare for many railroads; that, at least, two complete lines between Boston and the valley of

Central New York will pass through it; and that the completion of these shorter lines, with lower grades, will compel the Albany and Boston Railroad to straighten their line, by which twelve or fifteen miles will be saved, when Boston will have three better and shorter lines than the present one to the Hudson River. Under the influence of these additional lines, I expect the muchtalked-of new line through Central New York will be built from the Hudson River to the lakes, which, with the Albany and Susquehanna, will make three lines from the West to the Hudson River, tributary to Boston, on two of which freight can be brought from the West, and landed in Boston, at less actual cost than, by the Erie or Pennsylvania Central, it can be landed in New York.

And during the season of inland navigation, when the Hudson River carries water-borne freight so cheap to New York, I expect vessels and steamers of eight or nine hundred tons, from all the ports of the upper lakes, will land unbroken cargoes at Burlington, Vermont, two hundred and fifty-eight miles from Boston. But I do not expect produce will be carried from the West toward the seaboard, until it arrives within eighty-five miles of Baltimore and one hundred and six miles of Philadelphia, and then be turned northward, and carried past New York four hundred and sixteen miles to Boston for export, in any sufficient quantity to exercise the least influence upon the prosperity of Boston or the welfare of Massachusetts.

Much of the commercial prosperity of New York is due to her communication with the West through the Mohawk valley, and it is through this same valley, and not by more circuitous routes over mountains, that Boston must look for such a connection with the West as will make it practicable to recover and increase her commercial prosperity.

## COAL TRAFFIC.

The following paper was furnished to me by a friend who has experience in the coal traffic:—

The price paid for carrying coal over the Baltimore and Ohio Railroad from Cumberland to Baltimore, one hundred and eighty miles, through trains, on an average descending grade from the mountains to the seaboard, is a fraction under one and one-half cents (1½ cts.) per ton per mile. For intermediate stations the rate is higher.

The prices over the Cumberland and Pennsylvania Railroad are five (5) cents per ton per mile for five (5) miles, and under four (4) cents between five (5) and ten (10) miles, and three (3) cents for distances over ten (10) miles. This road is carried over mountain grades, is fifty-three (53) miles long, including branches and sidings.

There are two important conditions affecting the cost, and admitting of these moderate rates upon these two roads, which cannot apply to any New England railroads.

1st. The volume and regularity of the traffic, which permits these two roads, as well as the Reading, to maintain a complete and special equipment devoted to and applicable for this coal business alone.

The intermittent business of distributing coal, in comparatively small quantities, to towns and villages along

the line of a railroad, is an entirely different traffic, and subject to greatly increased expenses, per ton, per mile. Any price for such distribution, based upon the cost of the through coal traffic of the Baltimore and Ohio or Reading roads, will be altogether unreliable and insufficient.

2d. The minimum cost of coal consumed by the locomotives employed in hauling coal trains from the mining districts, supplies the motive power at the minimum cost, while New England necessarily pays the maximum cost of fuel. The Cumberland and Pennsylvania, and the Baltimore and Ohio Railroads, pay from one dollar and twenty-five cents to one dollar and seventy-five cents per ton; while the roads leading out of Boston pay for coal from the same mines from seven dollars and fifty cents to eight dollars per ton.

That volume and regularity of business is essential to maintaining the above-mentioned moderate rates is proved by the fact that even under the rates charged by the Cumberland and Pennsylvania Railroad, the business is conducted at a loss during the winter months, when the tonnage is seriously reduced.

The Boston and Lowell Railroad charge five cents per ton, per mile, for hauling coal twenty-five miles to Lowell, over a straight road, with easy grades.

The prices necessarily charged by the New England roads, for carrying and distributing coal, always have been, and doubtless always will be, vastly higher than those charged by the great through traffic railroads of Pennsylvania and Maryland, taking the coal down from the mines to the seaboard, — all theories or calculations to the contrary notwithstanding.

If Massachusetts invests her money in Connecticut railroads, upon the idea, thereby, of getting coal into the old Bay State at the prices per ton, per mile, charged on the Baltimore and Ohio or Reading railroads, she will be acting against the experience of every mile of railroad within her limits.

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